Substitute for form 1449A/PTO Complete If Known INFORMATION DISCLOSURE **Application Number** 10/696,547 STATEMENT BY APPLICANT October 29, 2003 heets as necessary) **Filing Date** Yang, Shu-Ping **First Named Inventor Group Art Unit** 1615 SEP 2 8 2005 **Examiner Name** Unknown Attorney Docket No: 1443.065US1

	US PATENT DOCUMENTS						
Examiner Initial *	USP Document Number	Publication Date	Name of Patentee or Applicant of cited Document	Filing Date If Appropriate			
/AS/	US- / 2003/0204180 A1	10/30/2003	Huang, Y., et al.	04/30/2002			
J	US-4,051,842	10/04/1977	Hazel, P. M., et al.	09/15/1975			
	US-4,140,122	02/20/1979	Kuhl, D., et al.	06/02/1977			
	US-4,141,973	02/27/1979	Balazs, E. A.	10/25/1977			
	US-4,383,529	05/17/1983	Webster, H. L.	11/03/1980			
<u> </u>	US-4,615,697	10/07/1986	Robinson, J. R.	12/20/1984			
1/	US-6,224,857	05/01/2001	Romeo, A., et al.	07/19/1999			
A	US-6,375,963	04/23/2002	Repka, Michael A., et al.	06/15/2000			

FOREIGN PATENT DOCUMENTS				
Examiner Initials*	Foreign Document No	Publication Date	Name of Patentee or Applicant of cited Document	T²
/AS/	JP-9-208476 (w/ English Abstract)	08/12/1997	Doi, N., et al.	

	OTHE	R DOCUMENTS NON PATENT LITERATURE DOCUMENTS	
Examiner Initials*	Cite No ¹	include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T²
/AS/		RAMIRES, P. A., et al., "Biocompatibility of Poly(vinyl alcohol)-Hyaluronic Acid and Poly(vinyl alcohol)-gellan Membranes Crosslinked by Glutaraldehyde Vapors", <u>Journal of Materials Science: Materials in Medicine, 13,</u> (2002), 119-123	
/AS/		VASILIONKAITIS, V., "Search for an Artificial Lubricant for Joints Based on Complexes of Poly(Vinyl Chloride) with Hyaluronic Acid Biopolymers", Nauchno-Issled. Inst. Eksp. Klin. Med., Vilnius, USSR sint. Izuch. Fiziol. Akt. Veshchestv, Tezisy Dokl. Mezhvuz Nauchn. Konf. Uchasteim Farmakol.Latv. Est. SSR, 20-1. Vil'nyus. Gos. Univ. Vilnius USSR, (Abstract Only),(1975), 1 pg.	

/Ali Soroush/ **EXAMINER**

DATE CONSIDERED

PTO/SB/084(10-01)
Approved for use Urrough 10/31/2002, OMB 651-0031
US Patent & Trademerk Office; U.S. DEPARTMENT OF COMMERCE
ired to respond to a collection of Information unless it contains a valid OMB control number. Substitute of form 1449A/PTO
INFORMATION DISCLOSURE
PRADE TEMENT BY APPLICANT Complete if Known **Application Number** 10/696,547 October 29, 2003 (Use as many sheets as necessary) **Filing Date First Named Inventor** Yang, Shu-Ping **Group Art Unit** 1615 **Examiner Name** Unknown Attorney Docket No: 1443.065US1 Sheet 1 of 1

US PATENT DOCUMENTS				
Examiner Initial *	I take of a great of the poculation I think Date			
/AS/	US-5,591,724	01/07/1997	Morales, A., et al.	02/14/1995

/Ali Soroush/ **EXAMINER**

DATE CONSIDERED

Substitute for form 1449A/PTO
INFORMATION DISCLOSURE 10/696,547 **Application Number** STATEMENT BY APPLICA October 29, 2003 Filing Date Yang, Shu-Ping **First Named Inventor** 1615 **Group Art Unit** Unknown **Examiner Name** Attorney Docket No: 1443.065US1 Sheet 1 of 1

US PATENT DOCUMENTS					
Examiner Initial *	USP Document Number	Publication Date	Name of Patentee or Applicant of cited Document	Filing Date If Appropriate	
/AS/	US-5,585,361	12/17/1996	Burns, J. W., et al.	06/07/1994	
/AS/	US-5,856,299	01/05/1999	Righetto, Z., et al.	11/26/1996	

	OTHE	R DOCUMENTS NON PATENT LITERATURE DOCUMENTS	
Examiner Initials*	Cite No ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T²
/AS/		DEL GUERRA, R. S., et al., "Biological Characterization of Hydrogels of poly(vinyl alcohol) and Hyaluronic Acid", <u>Journal of Materials Science: Materials in Medicine</u> , 5(9-10), (SeptemberOctober, 1994), 613-16	
/AS/		JEANLOZ, V.R. W., et al., "La Methanolyse de l'acide Hyaluronique Methyle", Helvetica Chimica Acta, 35, (1952), 262-71	

PTC/SB/08A(10-01)
Approved for use through 10/31/2002, OMB 651-0031

Substitute for form 1449A/PTO	Complete if Known			
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary)	Application Number	10/696,547		
	Filing Date	October 29, 2003		
	First Named Inventor	Yang, Shu-Ping		
	Group Art Unit	1615		
•	Examiner Name	Unknown		
Sheet 1 of 1	Attorney Docket No: 1443.065US1			

US PATENT DOCUMENTS				
Examiner Initial *	USP Document Number	Publication Date	Name of Patentee or Applicant of cited Document	Filing Date if Appropriate
/AS/	US-5,266,563	11/30/1993	Balazs, E. A., et al.	01/11/1990

/Ali Soroush/

PTO/SB/08A(10-01 Approved for use through 10/31/2002, OMB 651-0031 Sent & Trademark Office: U.S. DEPARTMENT OF COMMERCE

ute for form 1449A/PTO Complete if Known ORMATION DISCLOSURE 10/696,547 **Application Number** STATEMENT BY APPLICANT October 29, 2003 **Filing Date** (Use as many sheets as necessary) **First Named Inventor** Yang, Shu-Ping 1615 **Group Art Unit** Unknown **Examiner Name** Attorney Docket No: 1443.065US1 Sheet 1 of 3

		US	PATENT DOCUMENTS			
Examiner Initial *	USP Document Number	Publication Date	Name of Patentee or Applicant of cited Document	Class	Subclass	Filing Date If Appropriate
/AS/	US-4,665,060	05/12/1987	Mardh, Per A., et al.	514	61	03/22/1983
	US-4,725,585	02/16/1988	Wenge, Per S., et al.	514	54	09/20/1985
	US-4,746,504	05/24/1988	Nimrod, Abraham, et al.	424	1.73	03/14/1986
	US-4,762,824	08/09/1988	Kallenius, Gunilla P., et al.	514	54	08/01/1986
	US-4,784,991	11/15/1988	Nimrod, Abraham, et al.	514	62	03/09/1987
	US-4,851,521	07/25/1989	della Valle, Francesco, et al.	536	55.1	07/02/1986
	US-4,855,128	08/08/1989	Lynch, Donald M., et al.	424	49	01/14/1988
	US-5,002,759	03/26/1991	Gaffar, Abdul, et al.	424	49	07/25/1989
	US-5,401,723	03/28/1995	Gaffar, Abdul, et al.	514	21	12/02/1992
	US-5,409,902	04/25/1995	Carson, Robert G., et al.	514	23	12/31/1991
	US-5,514,665	05/07/1996	Speert, David P., et al.	514	53	10/03/1994
	US-5,604,200	02/18/1997	Taylor-McCord, Darlene	514	8	05/02/1994
	US-5,650,432	07/22/1997	Walker, Edward B., et al.	514	456	03/24/1995
	US-5,700,458	12/23/1997	Mandeville, III, W. Harry, et al.	424	78.07	09/20/1996
	US-5,795,958	08/18/1998	Rao, Narasinga, et al.	530	331	06/10/1996
	US-5,840,322	11/24/1998	Weiss, Ervin, et al.	424	405	12/19/1996
	US-5,883,079	03/16/1999	Zopf, David A., et al.	514	25	05/12/1998
	US-6,051,701	04/18/2000	Cialdi, Gloria, et al.	536	123	07/30/1998
	US-6,063,773	05/16/2000	Anderson, Robert A., et al.	514	57	09/29/1995
	US-6,290,959	09/18/2001	Wu, Xue-Ru, et al.	424	150.1	10/24/1997
V	US-6,417,173	07/09/2002	Roufa, Dikla, et al.	514	54	12/30/1999

	FOREIGN PATENT DOCUMENTS					
Examiner Initials*	Foreign Document No	Publication Date	Name of Patentee or Applicant of cited Document	Class	Subclass.	T²
/AS/	WO-00/45804	08/10/2000	Burns, James W., et al.	A61K	31/00	
/AS/	WO-02/24223	03/28/2002	Wessels, Michael R., et al.	A61K	39/00	

	OTHE	R DOCUMENTS NON PATENT LITERATURE DOCUMENTS	
Examiner Initials*	Cite No 1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T²
/AS/		ALHO, ANNA M., et al., "The Hyaluronate Receptor Is Preferentially Expressed on Proliferating Epithelial Cells", <u>The Journal of Cell Biology</u> , 108(4), (April 1989), pp. 1557-1565	
/AS/		AN, YUEHUEI H., et al., "Concise review of mechanisms of bacterial adhesion to biomaterial surfaces", <u>Journal of Biomedical Materials Research</u> , <u>43(3)</u> , (Fall 1998), pp. 338-348	

EXAMINER

/Ali Soroush/

DATE CONSIDERED

PTO/SB/08A(10-01)
Approved for use through 10/31/2002, OMB 651-0031

Substitute for form 1449A/PTO INFORMATION DISCLOSURE	Complete if Known	required to respond to a collection of information unless a contains a valid OMB control number	
STATEMENT BY APPLICANT	Application Number	10/696,547	
(Use as many sheets as necessary)	Filing Date	October 29, 2003 Yang, Shu-Ping	
	First Named Inventor		
	Group Art Unit	1615	
	Examiner Name	Unknown	
Sheet 2 of 3	Attorney Docket No: 1443.065US1		

	OTHE	R DOCUMENTS NON PATENT LITERATURE DOCUMENTS	
Examiner Initials*	Cite No 1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T*
		CHAFFIN, W L., et al., "Cell wall and secreted proteins of Candida albicans:	
/AS/		identification, function, and expression", Microbiology & Molecular Biology	
		Reviews, 62(1), (March 1998), pp. 130-80	
		CHO, S Y., et al., "Opportunistic fungal infection among cancer patients",	T
		American Journal of Clinical Pathology, 72(4), (October 1979), pp. 617-21	
1 1		CONNELL, H, et al., "Fimbriae-mediated adherence induces mucosal	
		inflammation and bacterial clearance", In: Toward anti-adhesion therapy for	
		microbial diseases by Itzhak Kahane; Itzhak Ofek, New York: Plenum	
		Press,(1996), pp. 73-80	
		CUNNINGHAM, M.W., "Pathogenesis of group A streptococcal infections",	
		Clinical Microbiology Reviews, 13(3), (July 2000), pp. 470-511	
		GOODISON, S, et al., "CD44 cell adhesion molecules", Molecular Pathology,	
		52(4), (August 1999), pp. 189-96	
1 1		HARDINGHAM, TIMOTHY E., et al., "Aggrecan, the Chondroitin Sulfate/Keratan	
1 1		Sulfate Proteoglycan from Cartilage", In: Articular Cartilage and Osteoarthritis,	
		edited by Klaus E. Kuetner et al., New York : Raven Press,(1992), pp. 5-20	
		HARDINGHAM, TIMOTHY E., et al., "BBA Report. The specific interaction of	
		hyaluronic acid with cartilage proteoglycans", Biochimica et Biophysica Acta,	
		279, (1972), pp. 401-405	<u> </u>
		HARDINGHAM, TIMOTHY E., et al., "Hyaluronic Acid in Cartilage and Proteoglycan Aggregation", Biochemical Journal, 139(3), (June 1974), pp. 565-581	
		HARDINGHAM, TIMOTHY E., "The role of link-protein in the structure of	
		cartilage proteoglycan aggregates", <u>Biochemical Journal</u> , 177(1), (January 1, 1979), pp. 237-247	
		HEINEGARD, DICK, et al., "Aggregation of cartilage proteoglycans. 3.	1-
		Characteristics of the proteins isolated from trypsin digests of aggregates",	
		Journal of Biological Chemistry, 249(13), (July 10, 1974), pp. 4250-4256	
		HORNEF, M.W., et al., "Bacterial strategies for overcoming host innate and	†
		adaptive immune responses", Nature Immunology, 3(11), (November 2002), pp. 1033-40	ļ
		HULTGREN, S J., et al., "Bacterial adhesins and their assembly", In: Escherichia	╁
j		coli and Salmonella : cellular and molecular biology/Frederick C Neidhardt; Roy	
]		Curtiss, Washington, D.C.: ASM Press,(1996), pp. 2730-2756	
		KAHANE, ITZHAK, et al., "Toward anti-adhesion therapy for microbial diseases",	
		New York : Plenum Press, (1996), pp. 73-80	
		LAURENT, C., et al., "Localization and quantity of hyaluronan in urogenital	t
		organs of male and female rats", Cell Tissue Research, 279, (1995), pp. 241-248	.
		LEE, JANET Y., et al., "Hyaluronan: a multifunctional, megaDalton, stealth	
		molecule", Current Opinion in Cell Biology, 12(5), (October 2000), pp. 581-586	.
$\overline{\mathbf{W}}$		LESLEY, JAYNE, et al., "Hyaluronan binding by cell surface CD44", Journal of	
▼		Biological Chemistry, 275(35), (September, 2000), pp. 26967-26575	

EXAMINER

/Ali Soroush/

DATE CONSIDERED

PTO/SB/08A(10-01)
Approved for use through 10/31/2002, OMB 651-0031
US Patent & Trademark Office; U.S. DEPARTMENT OF COMMERCE

Substitute for form 1449APTO	Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid QMB control number Complete if Known		
INFORMATION DISCLOSURE STATEMENT BY APPLICANT	Application Number	10/696,547	
(Use as many sheets as necessary)	Filing Date	October 29, 2003	
	First Named Inventor	Yang, Shu-Ping	
	Group Art Unit	1615	
	Examiner Name	Unknown	
Sheet 3 of 3	Attorney Docket No: 1443.065US1		

	OTHER	R DOCUMENTS NON PATENT LITERATURE DOCUMENTS	
Examiner Initials*	Cite No ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T
1001		LUO, et al., "Modification of Natural Polymers: Hyaluronic Acid", in Methods in	
/AS/		Tissue Engineering, Atala and Lanza (ed.), (2002), pp. 539 - 553	<u> </u>
		MAMMEN, MATHAI, et al., "Polyvalent Interactions in Biological Systems:	
		Implications for Design and Use of Multivalent Ligands and Inhibitors",]
		Angewandte Chemie International Ed., 37, (1998), pp. 2754-2794	
1 1 I		MOBASTERY, S, et al., "Bacterial antibiotic resistance", In: Encyclopedia of life	
		sciences/Nature Publishing Company, London; New York: Nature Pub.	
		Group,(2002)	<u>.</u>
		MUHLDORFER, I, et al., "Escherichia coli in urinary tract infections", In:	
		Molecular medical microbiology / Max Sussman, San Diego : Academic	
		Press,(2002), pp. 1515-1540	
		OFEK, I, "Adhesins as lectins: specificity and role in infection", Current Topics in	
		Microbiology & Immunology, 151, (1990), pp. 91-113	
		OKADA, M., "Molecular design and syntheses of glycopolymers", Progress in	
		Polymer Science, 26, (2001), pp. 67-104	
		PETRIN, D, et al., "Clinical and microbiological aspects of Trichomonas	
		vaginalis", Clinical Microbiology Reviews, 11(2):, (April 1998), pp. 300-17	
		REID, G, "Probiotics for urogenital health", Nutrition in Clinical Care, 5(1),	
		(January-February 2002), pp. 3-8	l
		SACKMANN, ERICH, et al., "Cell adhesion as wetting transition?",	
<u>L</u>		Chemphyschem, 3(3), (March 12, 2002), pp. 262-269	ļ
		SCHOOR, RICHARD A., et al., "Secretory IgA differentially promotes adherence	i
1		of type 1-piliated Escherichia coli to immortalized vaginal epithelial cell lines",	
		<u>Urology, 57(3), (March 2001), pp. 556-561</u>	ļ
		SHARON, N, "Bacterial lectins, cell-cell recognition and infectious disease",	<u> </u>
L	:	FEBS Letters, 217(2), (June 15, 1987), pp. 145-57	
	<u> </u>	SHNAYERSON, M, "The killer bug", Fortune (Industrial Edition), 146(6), (2002),	1
		pp. 149-156	
		SIMON, P. M., et al., "Inhibition of Helicobacter pylori Binding to Gastrointestinal	1
		Epithelial Cells by Sialic Acid-Containing Oligosaccharides", Infection and	
		Immunity, 65 (2), (February, 1997), pp. 750-757	ļ
		VARKI, A, "Biological roles of oligosaccharides: all of the theories are correct",	1
		Glycobiology, 3(2), (April 1993), pp. 97-130	
		WALSH, C, "Molecular mechanisms that confer antibacterial drug resistance",	
		Nature, 406(6797), (August 17, 2000), pp. 775-81	
		YOSHIZUMI, AKIRA, et al., "Self-Assembled Monolayer of Sugar-Carrying Polymer	
		Chain: Sugar Balls from 2-Methacryloyloxyethyl D-Glucopyranoside", Langmuir,	
		<u>15(2),</u> (January 19, 1999), pp. 482-488	<u> </u>
W		ZOPF, D, et al., "Oligosaccharide anti-infective agents", Lancet, 347(9007), (April 13,	
▼		1996), pp. 1017-21	

EXAMINER

/Ali Soroush/

DATE CONSIDERED